CLAIMS

1. An iron core winding for an iron core, wherein the winding includes coils of opposite polarities, and coils of a first polarity are coiled in series so that the beginning and ending of each coil cross on a corresponding magnetic pole, and coils of a second polarity, which is opposite to the first polarity, are coiled in series so that the beginning and ending of each coil cross on a corresponding magnetic pole, and the winding direction of the coils of the first polarity is opposite to that of the coils of the second polarity.

2. A variable reluctance angle detector in accordance with claim 1, wherein the winding number of the output winding is determined by multiplying the winding number of the excitation winding by the transformer ratio of the iron core winding.

3. A variable reluctance angle detector in accordance with claim 2, wherein the transformer ratio is approximately 0.28.

4. A variable reluctance angle detector in accordance with Claim 2, wherein the transformer ratio is approximately 0.5.

5. A variable reluctance angle detector in accordance with Claim 1, wherein the number of coils, or the winding number, is the same for each magnetic pole of the iron core winding.

6. A variable reluctance angle detector in accordance with claim 5, wherein the winding number of the output winding is determined by multiplying the winding number of the excitation winding by the transformer ratio of the iron core winding.

7. A variable reluctance angle detector in accordance with claim 6, wherein the transformer ratio is approximately 0.28.

8. A variable reluctance angle detector in accordance with claim 6, wherein the transformer ratio is approximately 0.5.

9. An iron core winding according to claim 1, wherein the iron core winding forms a two-phase output winding of a variable reluctance angle detector, and the variable reluctance angle detector includes:

a stator, in which an excitation winding and the two-phased output winding are coiled around the magnetic poles; and

a rotor, which is shaped such that the gap permeance of the stator changes in a sine wave form according to an angle of rotation θ.

10. A variable reluctance angle detector in accordance with claim 9, wherein the winding number of the output winding is determined by multiplying the winding number of the excitation winding by the transformer ratio of the iron core winding.

11. A variable reluctance angle detector in accordance with claim 10 wherein, the transformer ratio is approximately 0.28.

12. A variable reluctance angle detector in accordance with claim 10 wherein, the transformer ratio is approximately 0.5.

13. A variable reluctance angle detector in accordance with claim 9, wherein the number of coils, or the winding number, is the same for each magnetic pole of the iron core winding.

14. A variable reluctance angle detector in accordance with claim 13, wherein the winding number of the output winding is determined by multiplying the winding number of the excitation winding by the transformer ratio of the iron core winding.

15. A variable reluctance angle detector in accordance with claim 14 wherein, the transformer ratio is approximately 0.28.

16. A variable reluctance angle detector in accordance with claim 14 wherein, the transformer ratio is approximately 0.5.

17. A method of winding coils on an iron core comprising:

winding coils of a first polarity in series so that the beginning of each coil and the ending of each coil cross on a corresponding

magnetic pole, which is positioned along a circumference of the iron core; and

when the winding of the coils of the first polarity is completed, the winding direction is reversed and coils of a second, opposite polarity are coiled in series so that the beginning of each coil and the ending of each coil cross on a corresponding magnetic pole.